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Some Principles Underlying Prognosis in Schizophrenia.

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It has happened time and again in the history of scientific thought and progress that complex problems have been solved by a process of simplification, so that a clear picture has emerged from what had previously appeared to be a chaotic and unpatterned mass of data, and later we have found to our distress that the process of simplification had been one of over-simplification and that our clear image is no better than a false image. This is nowhere more true than in the history of psychiatry. When Kraepelin, the father of modern psychiatry, fulfilled Kahlbaum's demands that in considering a psychotic picture the whole course of the psychosis should be taken into account, and described the two main groups of the endogenous psychoses, a new era had dawned for psychiatry. Purely descriptive psychiatry had given way to brilliant empiricism, which presented us with the clear pictures of dementia præcox and manic-depressive psychosis, which combined both diagnosis and prognosis within their framework. According to this new *schema*, these two psychoses should exhibit a group-uniformity in their courses and symptomatology, and the prognosis should be correspondingly simple. Do we, as a matter of fact, find that the majority of cases of schizophrenia show this uniformity and terminate similarly; do the greater number of cases exhibiting melancholia or mania conform to Kraepelin's picture of manic-depressive psychosis? Do we feel quite happy when called upon to give a prognosis in these cases?

Kraepelin's grand simplification proved to be another case of over-simplification, and his two carefully demarcated clinical units frequently seemed to merge into each other. Clinical observation and experience demanded that the two great groups should be divided into sub-groups, and these sub-groups into further smaller groups. Thus, Kraepelin's two pictures of (*a*) a clearly defined disease beginning in youth and proceeding progressively to a terminal dementia and destruction of the personality, and (*b*) of another mental illness characterized by periodic affective disturbances, which left the other faculties untouched, and had no disintegrative effect on the personality, lost all their sharpness and appeared almost useless for the purposes of prognosis. All seemed to be reduced once more to chaos.

Specht had demonstrated that paranoia and manic-depressive psychosis can overlap; Willmanns had shown that patients exhibiting apparently classical katatonia by no means always proceeded to a terminal dementia; Urstein had noted that many patients whose condition had terminated in typical schizophrenic dementia had for years exhibited the symptoms of manic-depressive psychosis; and Bumke had been compelled to reclaim the conception of melancholia from the manic depressive system which had swallowed it.

In addition to the clinical approach to psychiatry, other methods were in process of development. To mention a few of the more important, the approach by way of cerebral pathology, brilliantly represented by such exponents as Wernicke and Meynert, and the phenomenonological and the psychoanalytical methods were all supplying their contribution to psychiatry and making an already complex situation even more complex. Bleuler, in his studies of the schizophrenic personality and the changes which it undergoes in the course of the disease, turned attention away from the superficial symptomatology to the events occurring in the deeper psychic levels. In various studies, Gaupp, Tilling, Friedmann and Birnbaum, and later even Kraepelin himself stressed the importance of the patient's pre-psychotic personality and general make-up as the determining factors for the course and termination of the psychosis. Further, the study of heredity had in the meantime developed into an independent science and could not be ignored by clinical psychiatry.

In spite of all these developments, Kraepelin's idea of two great psychotic groups, distinguishable and definable in the light of their own clinical course, has by no means lost all its meaning. A synthetic approach, a multidimensional diagnostic and prognostic methodology, however, became essential. This was provided preeminently by possibly the most original thinker and brilliant empirical psychiatrist of the present day, namely, Kretschmer. Kretschmer's psychiatric system is built on the broad and deep foundations of constitutional biology. It takes full account of the physical and organic factors and *differentiæ* of temperament and character. It shows a proper regard for human genetics, and on the other hand knows how to assess reactive and other exogenous influences. Like no other psychiatrist, this pure empiricist has unwittingly treated man as an indivisible psycho-physical unit in a way to satisfy the most rigid scholastic philosopher. Those who are only familiar with Kretschmer's earlier work and have been unable to follow its later development, and that of biological psychiatry in general, will have formed the impression that this school has also provided us with an over-simplified system, but, in my opinion, the Kretschmerian frames are capable of immense expansion without the pictures which they surround suffering from blurring or lack of definition.

It is my intention to-night to indicate how recent advances in psychiatry of the kind just indicated can assist us in arriving at a prognosis in individual cases of schizophrenia of the true endogenous type—always a matter of great difficulty.

I can lay no claim to originality for my remarks, which largely represent the views of Mauz, Kretschmer's Reader in psychiatry and Chief Assistant. I was fortunate enough to receive almost daily personal instruction from Mauz during my appointment in the clinic at Marburg, and was able to confirm his teaching with regard to the prognosis of the endogenous psychoses by the study of several hundreds of anamneses, katamneses and psychobiograms. Further, Mauz has recently crystallized his observations on the prognosis in schizophrenia and manic-depressive psychosis in book form;[1] I have taken leave to make the freest use of this book for to-night's paper.

There are a number of conditions which exhibit schizophrenic symptoms, but which are not to be grouped amongst the true varieties of schizophrenia. Chief amongst these are certain forms of the psychoses of puberty and situational schizophrenia-like attacks. As I am not at the moment concerned with the differential diagnosis of schizophrenia, I will not consider any of these states. However, I must mention that in the various forms of true schizophrenia, there is present what may be called the schizophrenic process, which shows the actual activity of the disease, its organic physical nature, and its progressive direction towards the destruction and dissolution of the personality.

[1] F. Mauz: "Die Prognostik der Endogenen Psychosen" (G. Thieme, Leipzig, 1930).

The schizophrenic process is by no means always immediately detectable; on the other hand, when it is recognizable, it is a certain sign that the patient is faced with a depersonalization and disintegration. What form this will take, how complete it will be, how soon it will occur, form the chief problems with which we are here concerned in our endeavour to establish some of the principles underlying the prognosis in true schizophrenia.

Before tackling these problems directly, it is necessary to indicate the chief signs and symptoms by which the schizophrenic process may be recognized. The cardinal pathognomonic indication of this process is the subjective experiencing and awareness of his illness by the patient as a change in himself, as a threat to his ego and its unity, as an experienced withdrawal of something from his personality and an accompanying sense of insufficiency, as a conscious disintegration of individuality, as a diminished sense of personal activity. The general frame of mind is therefore one of doubt, anxiety and perplexity, accompanied by weird feelings of approaching psychic dissolution. It is not always necessary for the patient to inform us in words of his subjective experience, for his state of mind is mirrored for us in his manner and facial expression, which always exhibit paradoxical features. One looks at him: he is cheerful and vivacious and yet, at the same time, neither cheerful nor vivacious, but, on the contrary, singularly stiff. His expression is one of suffering and yet not one of suffering. Every expression seems at the same time to negative itself; a show of interest betrays coincidently a real lack of interest. The whole psychomotility shows a motiveless, meaningless restlessness which, in a mysterious kind of way, creates an impression of frozen immobility.

As I am not here concerned with diagnostic problems, I will make no mention of separate symptoms of the schizophrenic process. However, before proceeding to more directly prognostic problems, I must mention a group of symptoms which are also pathognomonic of that process; I refer to the purely physical sensations experienced by the patient—the peculiar and often bizarre paræsthesiæ, such as the feeling that one half of the body has expanded or shrunken, that the genitals are being tampered with, that the forehead is made of glass, and so on. Sometimes these sensations make their appearance before the general sense of menace and approaching disintegration makes itself felt at the psychic level. Symptoms of this kind are not in themselves referable to anything occurring at the psychological level; the more clear-cut and simple, the more pathognomonic they are of the schizophrenic process. A single outstanding organic symptom of this bizarre order is of graver prognostic significance than a picture of complete "lunacy" as imagined by the layman or the inexperienced physician.

Now that I have indicated what is meant by the schizophrenic process, and asserted its prognostic significance, the problem of prognosis can be tackled in greater detail.

The destructive process can come about in one of two ways—either *catastrophically* or by means of a series of "attacks." Let us briefly consider the schizophrenic catastrophe and the type of person who is likely to be its victim. What is here designated by that term approximates closely to Kraepelin's original description of dementia præcox; but it must be noted that this is a rare form of the disease in relation to the totality of the schizophrenias.

Of the schizophrenic admissions into the Marburg Klinik, about 15% only belong to this group. They were all young people between the ages of sixteen and twenty-five, mostly between nineteen and twenty-one. This condition is termed "catastrophic" because it terminates with dementia within from two to three years of its onset, after running a rapidly progressive course. It might be expected that this type of schizophrenic would show every sign of the schizophrenic process. As a matter of fact, these signs are often not apparent or no longer apparent. On the other hand, a large group which falls victim to the schizophrenic catastrophe

exhibits the symptomatology of the schizophrenic process in its most unequivocal form, especially the subjective consciousness of personal disintegration. This group is so well defined that Mauz proposes the term "*schizokaria*" to distinguish it, a term which implies that the destructive process involves the very core of the person's being. The catastrophic process may manifest itself in two other forms—katatonic and hebephrenic. There is no need for me to say anything further about katatonia and hebephrenia except perhaps to state that, speaking very broadly, the former represents the schizophrenic process at the psychomotor level, and the latter at the emotional level. The paranoid, paraphrenic, oneiroid and other forms of the disease are not met with in the schizophrenic catastrophe. Further, the switching-over from one symptom-pattern to another which is so characteristic of other forms of schizophrenia never occurs here. The patient suffers throughout from one of the three clear-cut syndromes—schizokaria, katatonia or hebephrenia, until the terminal dementia completely blurs the symptomatological picture.

Let us see what type of person is subject to the schizophrenic catastrophe, first, from the point of view of physical habitus. The most striking fact that emerges from Mauz' investigations is that in a large series of such patients, there was no single instance of a pyknosomatic person falling into this group. 81·3% were leptosomatic or athletosomatic, and 18·7% grossly dysplastic. The athletosomatic and powerfully built leptosomatic types show an affinity for the katatonic form of the disease; schizokariacs tend to be predominantly of the thin or extreme asthenic-leptosomatic habitus, and the hebephrenics seem to be recruited largely from the dysplastic group.

Let us now study this group from the point of view of pre-psychotic personality. It is interesting to note that schizokariacs belong almost exclusively to the higher and more intellectual levels of society. If one wished to employ that hackneyed and unpleasant Americanism, one could say that schizokaria is essentially a disease of "*highbrows.*" The psychobiograms show that 99·6% of these people are predominantly autistic and introverted, and only 0·4% mainly extroverted, realistic, sociable and materialistic. The attitude towards life of the first (i.e., the largely autistic) group was as follows: 1·2% only were purely sthenic; 20·8% presented a purely asthenic front towards life and its problems; 11% showed a contrasted attitude, predominantly sthenic with an asthenic opposite pole. The attitude towards life of 67% was predominantly asthenic with a sthenic opposite pole. The pre-psychotic personality in schizokaria, then, shows autism, idealism, a tendency to pre-occupation with religion and philosophy, poor adaptability to the world as it is, a contrasted attitude towards life predominantly asthenic with a sthenic opposite pole, and very infrequently a purely asthenic attitude.

The pre-psychotic personalities of the katatonic group do not fall into such clearly defined categories; katatonics are found in all walks of life. They invariably show schizoid characteristics, lacking warmth, versatility and adaptability, but, on the other hand, they do not exhibit the refined sensitivity and touchiness which characterize the pre-psychotic personality in schizokaria. Roughly speaking it may be said that a certain negativism has characterized them from the beginning. To sum them up in a few epithets, they are irritable, moody, "peculiar," one-sided, narrow and inflexible.

The pre-psychotic personality of the hebephrenics in this group is quite different. In childhood they are docile, contented and sociable, and are often regarded as "model" children. In 75% of the series the impulsive life loomed larger than the rational. These people showed a tendency to naive affective outbursts and primitive reaction-patterns, labile emotionally coloured modes of thought and facile dis-inhibition. In only 11% did the charactological factors predominate over the impulsive levels. 14% showed a mixture of these two kinds of psychic constitution.

We will now distinguish the schizophrenic attack from the catastrophic form of the disease. The symptomatology in the former is much richer than in the latter.

In addition to the three varieties met with in the catastrophic form, we find the paraphrenic and paranoid forms, and those distinguished by syndromes such as hypochondriacal, obsessional and hysterical symptom-complexes. Unfortunately pressure of time prevents me from considering the very important prognostic features connected with the paranoid and paraphrenic forms of schizophrenia, or from describing the type of true schizophrenic attack with a psychogenic or reactive onset, and indicating the manner in which the prognosis is influenced thereby.

The majority of first attacks of schizophrenia occur in the twentieth year of life, but there is also a considerable group in which the first attack occurs some time between the thirty-fifth and forty-fifth years.

One important prognostic principle has so far emerged, namely, that a pyknosomatic physical habitus is incompatible with the schizophrenic catastrophe. How does this physical constitution influence the prognosis in the form of schizophrenia now under consideration? Firstly, it must be recognized that pyknosomatics are not immune from schizophrenia, as many students with only a superficial knowledge of constitutional biological psychiatry imagine to be alleged by Kretschmer. In Mauz's series of schizophrenic attacks, by which I mean all the forms of schizophrenia excepting the catastrophic, 21·4% of the cases showed pyknosomatic components.

Whereas, as I shall indicate in a moment, the intensity of a symptom or symptoms is a fair index of the degree of the schizophrenic process in the case of those exhibiting the dementia præcox constitution, this is not the case with pyknosomatics. These latter show an enormous capacity for restoration and regeneration. Every schizophrenic symptom in these cases contains considerable psychic components and runs its course very much more on the functional level.

It may be stated with some certainty that the pyknosomatic physique reduces the probability of terminal dementia and favourably influences the degree of residual mental defect.

We must next ask ourselves what points there are, if any, to help us to decide how quickly and how completely the destructive process will progress, and whether fresh attacks with further disintegration are likely to occur in patients with a dementia præcox constitution. In the first place, it may be said that in these cases, as we have already indicated, the more clear-cut and definite a symptom shows itself to be, the more must it be regarded as evidence of the schizophrenic process. The reason for this is that with this constitution separate symptoms are to a much larger extent physically organically determined even when outwardly the symptom is predominantly psychic; consequently the regenerative process is less complete and something residual is always left behind. (I hope I have been able to make myself sufficiently clear as to what I mean by the intensity of a symptom. It is by no means to be confused with the degree of excitability or irrationality which may be present, factors by which a layman gauges the degree of insanity.)

The following further points are also aids to prognosis: In about 98% of cases final and complete schizophrenic dementia sets in at the latest from within three to four years from the onset of the disease, but in only about 14% of total cases does the process run this rapid and continuous (in other words catastrophic) course. The final irremediable destruction in non-catastrophic forms usually occurs in the third attack, and if it fails to occur then, it can be stated with practical certainty that it will not occur at all. It must, however, be borne in mind that the second and third attacks need not necessarily be determined by the schizophrenic process, but may arise as pure reactive formations. We thus see the importance of being able to distinguish between true schizophrenia in the sense of the schizophrenic process and reactive schizophrenia—problems of differential diagnosis which do not concern us here.

Before summing up the position with regard to the prognosis of individual cases

of schizophrenia, I should just like to mention the type of genuine schizophrenia which begins disguised as neurosis. In fact these cases are more often than not diagnosed as neurosis and receive a favourable prognosis. Occasionally one reads in the lay press of people who have been driven mad by psychoanalysis. I imagine that this is the type of case referred to. The patient has been treated psychoanalytically for an apparent neurosis and the schizophrenic process has developed in spite of, and not on account of, the psychotherapeutic interference. It would be of advantage if there were any means of distinguishing between true psychogenic and psychotic neurosis-formations. The following points of distinction should prove helpful. In ordinary neurosis, katathymic material emerges in the course of psychotherapy with great difficulty, against considerable resistance. In pre-schizophrenic neurosis such material flows out unchecked as though the patient were driven by a confessional urge. The material is presented with astounding clarity and with complete composure and lack of emotionalism; reserve, and the usual conventional reticences appear to be absent. On the other hand, even though the katathymic material seems to have a definite causal relation, this psycho-katharsis has no therapeutic results. This shows that the neurotic events are occurring at a superficial level; in fact the schizophrenic lacks the capacity for the formation of complexes with their roots in the deeper psychic strata.

We have already said enough to show that in schizophrenia, as in many other conditions, prognosis and diagnosis are intimately bound together. In psychoses exhibiting a schizophrenic symptomatology the key to both is the estimation of the degree of the schizophrenic process. As a general rule, we can say with Bleuler that the more physically organic and the more clear-cut the symptom, the more certain we can be of a true schizophrenic process at work behind the condition. I do not necessarily mean physically organic in the ordinary sense as applying to general medicine, but in the special sense already indicated; although about 11% of schizophrenics show unequivocal physical symptoms such as spasmophilia, loss of weight followed by great increase in weight, secretory and trophic disturbances and pigmentary changes.

To sum up the question of prognosis: The prognosis depends primarily on establishing the presence of the true schizophrenic background as an index of the schizophrenic process. As already indicated, I have only had time to give a few hints on the solution of this problem of differential diagnosis. The establishment of the presence of the schizophrenic process informs us that the patient is in danger of becoming permanently demented. We next ask ourselves how rapid and how complete will be the disintegration; and we have seen that the pyknosomatic habitus excludes a catastrophic destruction of the personality, whereas the other types of physique increase the probability. Further, the degree of psychotic change is considerably lessened in persons previously showing a stable, well defined attitude to the external world with a temperamental background characterized by warmth, openness, conciliatoriness and a sense of adequacy in the face of the demands of reality, versatility of activities and interests, and adaptability of aims and potentialities.

The danger of a high degree of personal dissolution is increased by a pre-morbid psychic constitution, exhibiting difficulty in adaptation to the outside world, a high degree of individualism, intraversion, reserve, one-sidedness, and rigidity of aims and potentialities.

I am only too conscious of the great incompleteness of my paper. Whatever its shortcomings, however, I think it can claim to have demonstrated that what I call the biological approach to psychiatry is of very much more than of merely academic interest, and I venture to prophesy that it will eventually exert the same considerable degree of influence on clinical and theoretical psychiatry in England as it already has in Germany and other European countries.